

## Multilayer Ferrite Beads



### MECHANICAL SPECIFICATIONS

**Solderability:** 90 % coverage after 5 s dip in 235 °C solder following 60 s preheat at 120 °C to 150 °C and type R flux dip

**Resistance to Solder Heat:** 10 s in 260 °C solder, after preheat and flux per above

**Terminal Strength:** 1.0 kg (2.2 lbs) minimum for 30 s

**Beam Strength:** 2.0 kg (4.4 lbs) minimum

### STANDARD ELECTRICAL SPECIFICATIONS

| Z<br>± 25 % AT 100 MHz<br>(Ω) | FREQUENCY<br>(MHz) | DCR<br>MAX.<br>(Ω) | RATED<br>DC CURRENT<br>(mA) |
|-------------------------------|--------------------|--------------------|-----------------------------|
| 19                            | 100                | 0.05               | 500                         |
| 26                            | 100                | 0.05               | 500                         |
| 31                            | 100                | 0.05               | 500                         |
| 50                            | 100                | 0.10               | 600                         |
| 60                            | 100                | 0.10               | 600                         |
| 70                            | 100                | 0.10               | 600                         |
| 80                            | 100                | 0.20               | 400                         |
| 90                            | 100                | 0.20               | 400                         |
| 100                           | 100                | 0.20               | 400                         |
| 120                           | 100                | 0.20               | 400                         |
| 150                           | 100                | 0.20               | 300                         |
| 200                           | 100                | 0.20               | 300                         |
| 300                           | 100                | 0.30               | 300                         |
| 500                           | 100                | 0.30               | 200                         |
| 600                           | 100                | 0.30               | 200                         |
| 800                           | 100                | 0.30               | 200                         |
| 1000                          | 100                | 0.40               | 200                         |
| 1200                          | 100                | 0.40               | 100                         |
| 1500                          | 50                 | 0.50               | 100                         |
| 2000                          | 30                 | 0.50               | 100                         |

### FEATURES

- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtually eliminates silver migration
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

### ENVIRONMENTAL SPECIFICATIONS

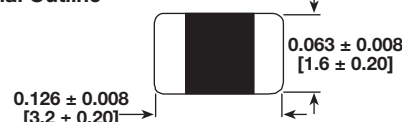
**Operating Temperature:** - 55 °C to + 125 °C

**Thermal Shock:** 300 cycles, - 40 °C to + 125 °C

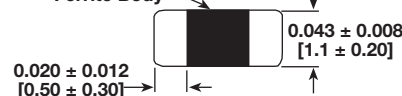
**Biased Humidity:** 85 % RH at 85 °C, 1000 h at full rated current

### DIMENSIONS in inches [millimeters]

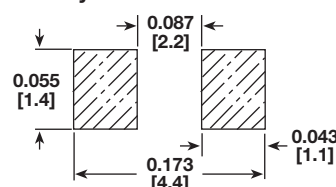
#### Dimensional Outline



#### Ferrite Body



#### Recommended Pad Layout



### PACKAGING OPTIONS

- Bulk: 1000 pieces per plastic bag
- Tape and Reel: Paper carrier tape, 3000 pieces per reel

### DESCRIPTION

|                 |                 |                     |              |                               |
|-----------------|-----------------|---------------------|--------------|-------------------------------|
| <b>ILB-1206</b> | <b>19 Ω</b>     | <b>± 25 %</b>       | <b>ER</b>    | <b>e3</b>                     |
| MODEL           | IMPEDANCE VALUE | IMPEDANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

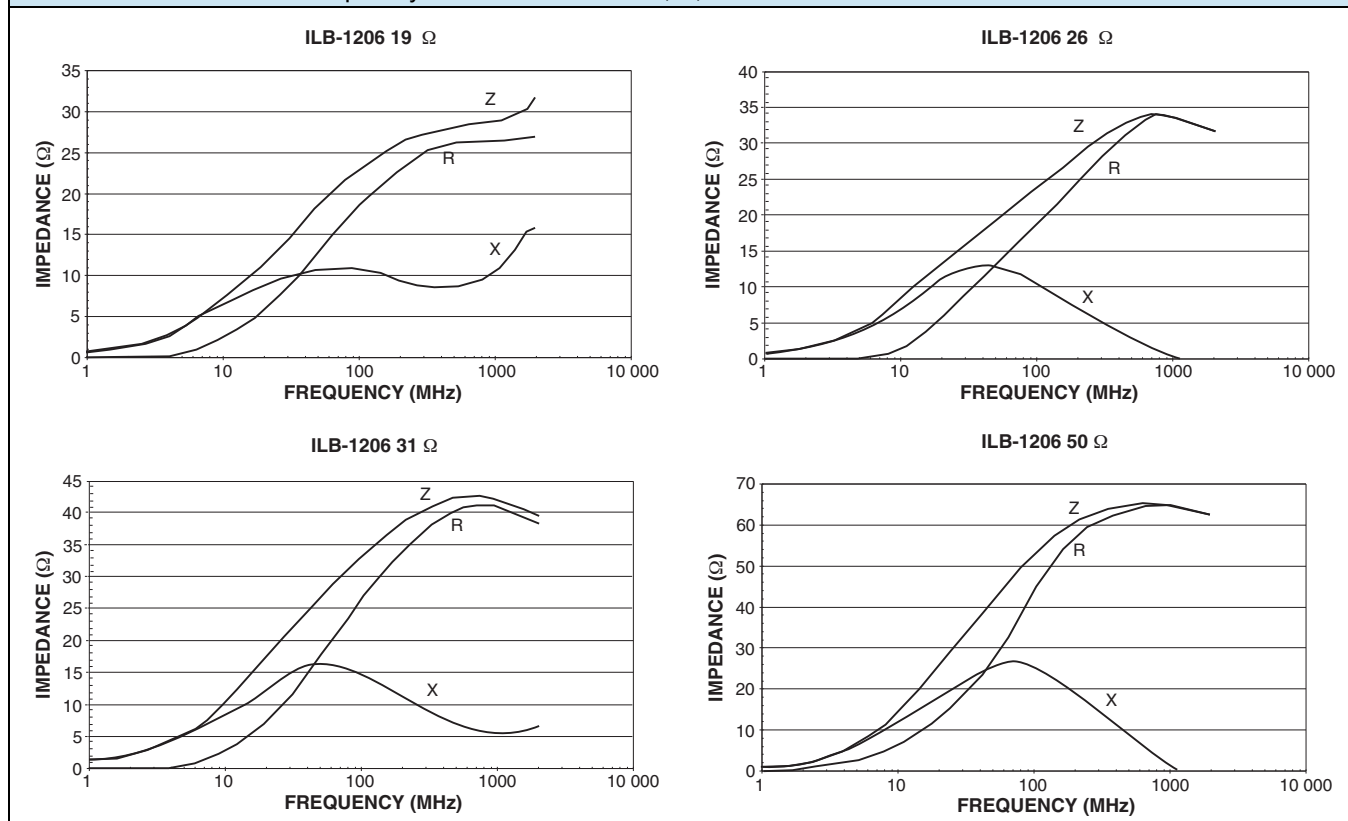
### GLOBAL PART NUMBER

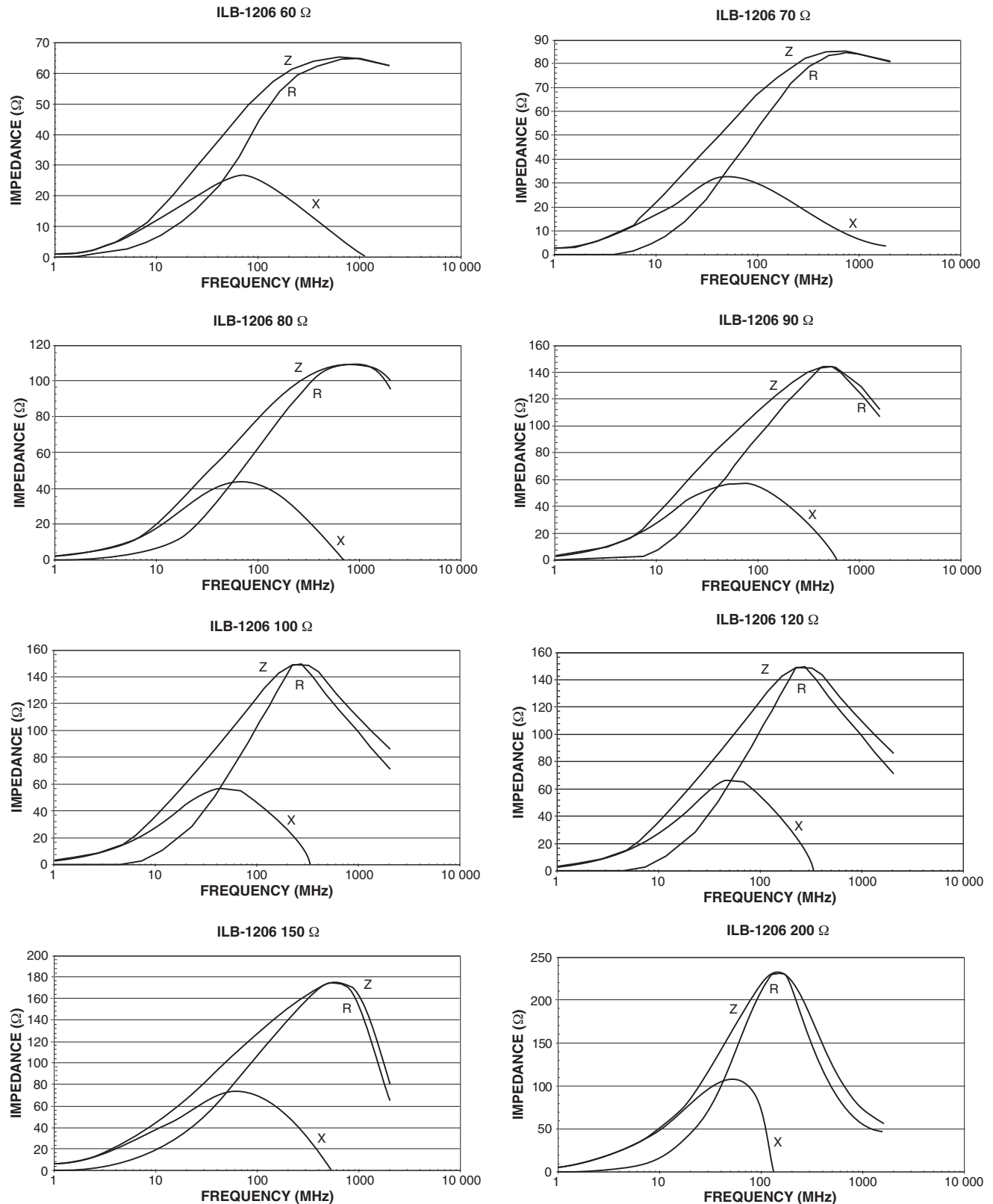
|                |          |          |          |          |          |              |          |                 |          |          |                     |          |
|----------------|----------|----------|----------|----------|----------|--------------|----------|-----------------|----------|----------|---------------------|----------|
| <b>I</b>       | <b>L</b> | <b>B</b> | <b>1</b> | <b>2</b> | <b>0</b> | <b>6</b>     | <b>E</b> | <b>R</b>        | <b>1</b> | <b>9</b> | <b>0</b>            | <b>V</b> |
| PRODUCT FAMILY |          |          | SIZE     |          |          | PACKAGE CODE |          | IMPEDANCE VALUE |          |          | IMPEDANCE TOLERANCE |          |

## TAPE AND REEL SPECIFICATIONS in inches [millimeters]

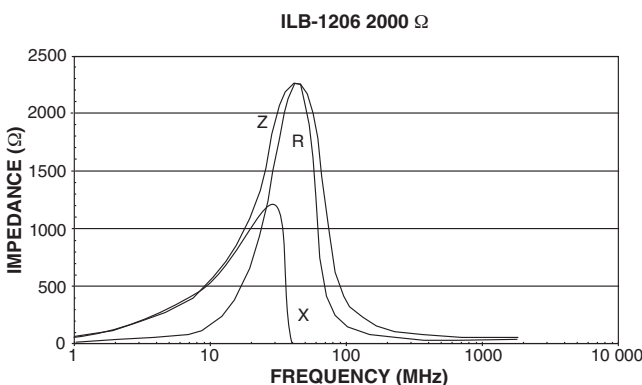
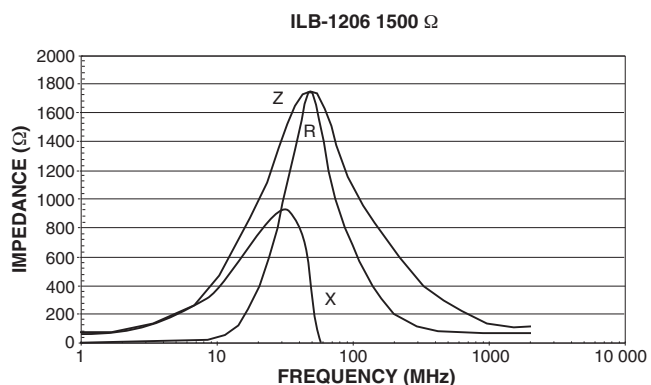
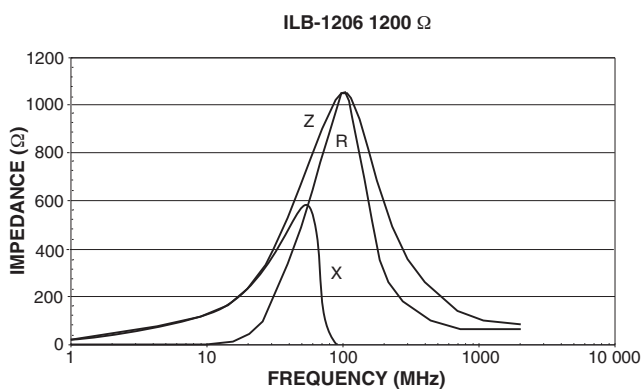
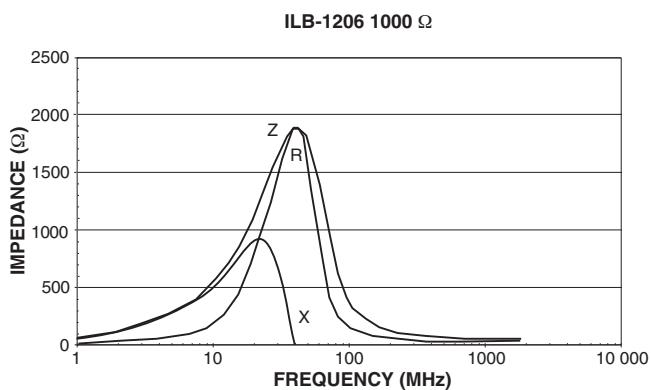
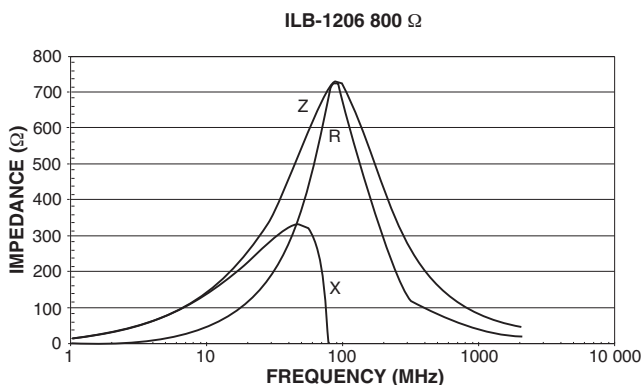
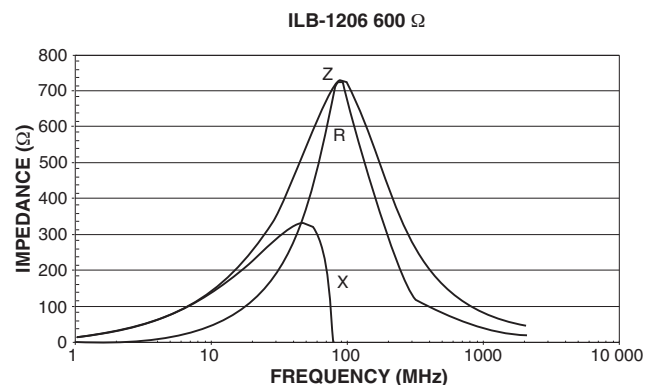
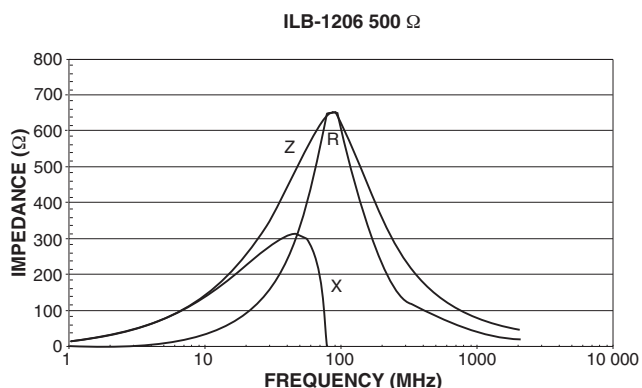
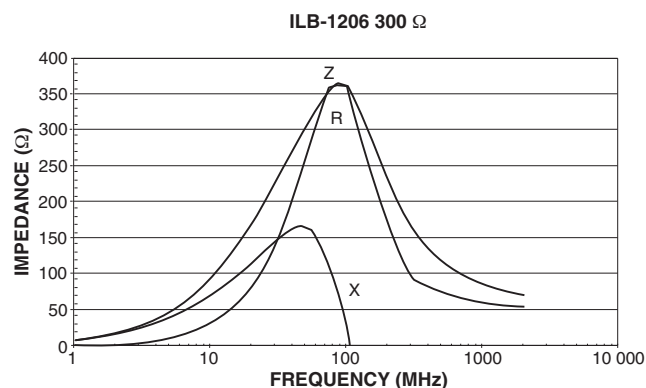
|  |                |                                           |
|--|----------------|-------------------------------------------|
|  | A <sub>0</sub> | 0.071 ± 0.008 [1.80 ± 0.2]                |
|  | B <sub>0</sub> | 0.140 ± 0.006 [3.45 ± 0.15]               |
|  | D <sub>0</sub> | 0.059 + 0.005/- 0.000 [1.5 + 0.127/- 0.0] |
|  | D <sub>1</sub> | 0.039 min. [1.0 min.]                     |
|  | E <sub>1</sub> | 0.069 ± 0.004 [1.75 ± 0.1]                |
|  | F              | 0.138 ± 0.002 [3.50 ± 0.05]               |
|  | K <sub>0</sub> | 0.049 ± 0.002 [1.24 ± 0.05]               |
|  | P <sub>0</sub> | 0.157 ± 0.004 [4.00 ± 0.1]                |
|  | P <sub>1</sub> | 0.157 ± 0.004 [4.00 ± 0.1]                |
|  | P <sub>2</sub> | 0.079 ± 0.002 [2.00 ± 0.05]               |
|  | W              | 0.327 max. [8.3 max.]                     |
|  | T              | 0.009 ± 0.002 [0.2 ± 0.05]                |
|  | A              | 7.000 ± 0.079 [178 ± 2.0]                 |
|  | N              | 2.500 [63.5]                              |
|  | C              | 0.512 ± 0.020 [13.00 ± 0.5]               |
|  | W <sub>1</sub> | 0.315 + 0.059/- 0.000 [8.00 + 1.5/- 0.0]  |
|  | T <sub>1</sub> | 0.079 ± 0.002 [2.00 ± 0.05]               |

## TYPICAL CURVES - Frequency Characteristics of R, X, and Z



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